

## WHAT IS CLAIMED IS:

1. A digital set-top box, comprising:

a tuner for receiving a digital broadcasting signal and generating a digital  
5 data stream;

a demultiplexer for receiving said digital data stream and generating a  
digital video signal;

a MPEG-2 decoder for receiving said digital video signal and generating  
an interlaced digital video signal;

10 a deinterlace video processor for receiving said interlaced digital video  
signal and generating a digital RGB signal, wherein said digital video  
signal can be transmitted to a display via a DVI interface for a user to be  
watched on said display; and

15 a microprocessor connected to said tuner, said demultiplexer, said  
MPEG-2 decoder and said deinterlace video processor, for transmitting  
related data signal to each unit and controlling an operation of each unit.

2. The digital set-top box of claim 1, further comprising a digital to analog  
converter for receiving said digital RGB signal and converting said digital  
20 RGB signal into an analog RGB signal, wherein said analog RGB signal  
can be transmitted to said display via a VGA interface for a user to be  
watched on said display.

3. The digital set-top box of claim 1, wherein said digital broadcasting  
25 signal comprises a digital cable broadcasting signal.

4. The digital set-top box of claim 1, wherein said digital broadcasting signal comprises a digital wireless broadcasting signal.

5        5. The digital set-top box of claim 4, wherein said digital wireless broadcasting signal comprises a digital wireless terrestrial broadcasting signal.

10       6. The digital set-top box of claim 5, wherein said digital wireless terrestrial broadcasting signal comprises a DVB-T terrestrial broadcasting signal.

15       7. The digital set-top box of claim 4, wherein said digital wireless broadcasting signal comprises a digital wireless satellite broadcasting signal.

8. The digital set-top box of claim 7, wherein said digital wireless satellite broadcasting signal comprises a DVB-S satellite broadcasting signal.

20       9. The digital set-top box of claim 4, wherein said digital wireless broadcasting signal comprises an ATSC digital broadcasting signal.